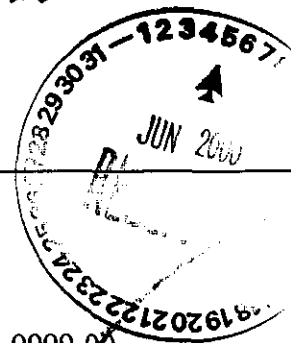


H0820
0053559



**Recra LabNet Philadelphia
Analytical Report**

Client : TNU HANFORD B99-078
RFW# : 0004L024
SDG/SAF#: H0820/B99-078


W.O #: 10985-001-001-9999-00
Date Received: 04-19-00

DIESEL RANGE ORGANICS

The set of samples consisted of three (3) soil samples collected on 04-17-00.

The samples and their associated QC samples were prepared on 04-30-00 and 05-03-00 and analyzed according to Recra OPs based on EPA Method 8015B for Diesel Range Petroleum Hydrocarbons on 05-01-00 and 05-03-00. The analysis met the intent of method WTPH-D.

1. The cooler temperature has been recorded on the chain-of-custody.
2. All required holding times for extraction and analysis were originally met. Due to low spike recoveries the samples were re-extracted outside of hold time. Both the original and the re-extracted results have been reported. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
3. All initial calibrations associated with this data set were within acceptance criteria.
4. All diesel continuing calibration standards analyzed prior to the sample extracts were within acceptance criteria.
5. All obtainable surrogate recoveries were within acceptance criteria.
6. One (1) of two (2) blank spike recoveries was outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
7. Two (2) of four (4) matrix spike recoveries were outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
8. I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard-copy data package has been authorized by the laboratory Manager or a designee, as verified by the following signature.


J. Michael Taylor
Vice President
Philadelphia Analytical Laboratory

RECEIVED
AUG 17 2000
EDMC
05-31-00
Date



R:\group\hplc\harr\dro\2000\104-024d.doc

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 9 pages.

GLOSSARY OF DIESEL DATA

DATA QUALIFIERS

- U** = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).
- J** = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B** = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.
- E** = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- I** = Interference.

ABBREVIATIONS

- BS** = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD** = Indicates blank spike duplicate.
- MS** = Indicates matrix spike.
- MSD** = Indicates matrix spike duplicate.
- DL** = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.
- NA** = Not Applicable.
- DF** = Dilution Factor.
- NR** = Not Required.
- SP** = Indicates spiked compound.

Recra LabNet - Lionville Laboratory

DIESEL RANGE ORGANICS BY GC

Report Date: 05/30/00 16:14

RFW Batch Number: 0004L024

Client: TNU-HANFORD B99-078

Work Order: 10985001001 Page: 1

	Cust ID:	B0Y0P5	B0Y0P5	B0Y0P5	B0Y0P5	B0Y0P6	B0Y0P6
Sample	RFW#:	001	001	001 MS	001 MSD	002	002
Information	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		REPREP	REPREP	REPREP	REPREP	REPREP	REPREP
	p-Terphenyl	98 %	70 %	71 %	74 %	97 %	75 %
	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====
Diesel Range Organics		18	13	67 %	69 %	24	13

003

	Cust ID:	B0Y0P6	B0Y0P6	B0Y0P7	B0Y0P7	BLK	BLK BS
Sample	RFW#:	002 MS	002 MSD	003	003	00LE0478-MB1	00LE0478-MB1
Information	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		REPREP	REPREP	REPREP	REPREP	REPREP	REPREP
	p-Terphenyl	100 %	96 %	99 %	75 %	80 %	95 %
	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====	=====fl=====
Diesel Range Organics		18 * %	25 * %	34	18	4.00 U	16 * %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

2/05-3400

Recra LabNet - Lionville Laboratory

DIESEL RANGE ORGANICS BY GC

Report Date: 05/30/00 16:14

RFW Batch Number: 0004L024

Client: TNU-HANFORD B99-078

Work Order: 10985001001 Page: 2

	Cust ID:	BLK	BLK BS
Sample	RFW#:	00LE0490-MB1	00LE0490-MB1
Information	Matrix:	SOIL	SOIL
	D.F.:	1.00	1.00
	Units:	mg/kg	mg/kg

p-Terphenyl	69	%	73	%															
=====	=====	fl	=====	fl	=====	fl	=====	fl	=====	fl	=====	fl	=====	fl	=====	fl	=====	fl	=====
Diesel Range Organics	4.00	U	76	%															

ad
05-31-00

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

004

Recra LabNet - Lionville Laboratory
DRO ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD B99-078

DATE RECEIVED: 04/19/00

RFW LOT # :0004L024

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BOYOP5	001	S	00LE0478	04/17/00	04/30/00	05/01/00
BOYOP5	001 R1	S	00LE0490	04/17/00	05/03/00	05/04/00
BOYOP5	001 MS R1	S	00LE0490	04/17/00	05/03/00	05/04/00
BOYOP5	001 MSD R1	S	00LE0490	04/17/00	05/03/00	05/04/00
BOYOP6	002	S	00LE0478	04/17/00	04/30/00	05/01/00
BOYOP6	002 R1	S	00LE0490	04/17/00	05/03/00	05/04/00
BOYOP6	002 MS	S	00LE0478	04/17/00	04/30/00	05/01/00
BOYOP6	002 MSD	S	00LE0478	04/17/00	04/30/00	05/01/00
BOYOP7	003	S	00LE0478	04/17/00	04/30/00	05/01/00
BOYOP7	003 R1	S	00LE0490	04/17/00	05/03/00	05/04/00

LAB QC:

BLK	MB1	S	00LE0478	N/A	04/30/00	05/01/00
BLK	MB1 BS	S	00LE0478	N/A	04/30/00	05/01/00
BLK	MB1	S	00LE0490	N/A	05/03/00	05/04/00
BLK	MB1 BS	S	00LE0490	N/A	05/03/00	05/04/00

21
05-30-00

0004L024

Custody Transfer Record/Lab Work Request Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS



Client Tnu - Hanford 399-078

Est. Final Proj. Sampling Date _____

Project # 10985-001-001-9999-00

Project Contact/Phone # _____

RECRA Project Manager AS TX 41900

QC Spec Del Std TAT 30 days Today

Date Rec'd 4-19-00 Date Due 6-19-00 4-26-00

Account # _____

Matrix Codes:	Lab ID	Client ID/Description	Matrix QC Chosen (✓)		Matrix	Date Collected	Time Collected	RECRA LabNet Use Only												
			MS	MSD				VOA	BNA	Basic PCB	Herb	TPH	DRG	Hydrizing DISS	INORG Metal	CN				
S - Soil	001	BOYOP5			S	4/17/00	1020	X	X											
SE - Sediment	002	BOYOP6					1	X	X											
SO - Solid	003	BOYOP7					1030	X	X											
SL - Sludge	004	BOYOP2					0922						X							
W - Water	005	BOYOP3					0925						X							
O - Oil	006	BOYOP4					0900						X							
A - Air	007	BOYON8					0855						X							
DS - Drum Solids	008	BOYON9					0900						X							
DL - Drum Liquids	009	BOYOP0					0910						X							
L - EP/TCLP Leachate	010	BOYOP1					0918						X							

Special Instructions: Sas 399-078

DATE/REVISIONS:

1. Run Matrix QC
2. 4/26/00 #001-003 OPRB cancelled per Pm's BNA
3. TAT changed to Today
4. _____
5. _____
6. _____

RECRA LabNet Use Only

- Samples were: ☒ 1) Shipped or ☐ Hand Delivered
- Airbill # _____
- 2) Ambient or Chilled
- 3) Received in Good Condition ☒ or N
- 4) Labels Indicate Property Preserved ☒ or N
- 5) Received Within Holding Times ☒ or N
- COC Tape was:
- 1) Present on Outer Package ☒ or N
- 2) Unbroken on Outer Package ☒ or N
- 3) Present on Sample ☒ or N
- 4) Unbroken on Sample ☒ or N
- COC Record Present Upon Sample Rec't ☒ or N
- Cooler Temp. 2.3 °C

Relinquished by	Received by	Date	Time
<u>Heo Ex</u>	<u>D. J. Smith</u>	<u>4/19/00</u>	<u>0930</u>

Relinquished by	Received by	Date	Time
COMPOSITE WASTE	ORIGINAL REWRITTEN		

Discrepancies Between Samples Labels and COC Record? Y or N ☒

NOTES:

#4235 7953 5269

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B99-078-158		Page 1 of 1	
Collector Fahlberg		Company Contact M Todd		Telephone No. 372-9033		Project Coordinator TRENT, SJ		Price Code 8N Data Turnaround 45 Days	
Project Designation 200 Area Source characterization - 200-CW-1 OU		Sampling Location 200 East		SAF No. B99-078		Air Quality <input type="checkbox"/>			
Ice Chest No. SMI-598		Field Logbook No. EL 1381-3		COA B20CW1671C		Method of Shipment Fed-EX			
Shipped To TMA/RECRA Recra		Offsite Property No. A0000182		Bill of Lading/Air Bill No. 42357953-5269					
POSSIBLE SAMPLE HAZARDS/REMARKS NONE			Preservation		Cool AC				
			Type of Container		aG				
			No. of Container(s)		1				
			Volume		120mL				
Special Handling and/or Storage									
SAMPLE ANALYSIS					Semi-VDA - 8270A (TCL); TPH-Diesel Range - WTPH-D; PCBs - 8062				
Sample No.	Matrix *	Sample Date	Sample Time						
BOY0P5	Soil	4.17.00	1020	X					
BOY0P6	Soil	4.17.00	1020	X					
BOY0P7	Soil	4.17.00	1030	X					
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By R. F. Lee		Date/Time 4.17.00		Received By R. Thoren		Date/Time 4.17.00/1225		Originated from a non-Red location. No activity report provided. <2000 pCi/g	
Relinquished By R. Thoren		Date/Time 4.18.00/1430		Received By FED EX		Date/Time			
Relinquished By Fed Ex		Date/Time 4.19.00/1030		Received By D. [Signature]		Date/Time 4.19.00/1030			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
LABORATORY SECTION		Received By		Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time	

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B99-078-157 Page 1 of 1	
Collector Fahlberg		Company Contact M Todd		Telephone No. 372-9030		Project Coordinator TRENT, SJ	
Project Designation 200 Area Source characterization - 200-CW-1 OU		Sampling Location 200 East		SAF No. B99-078		Price Code 8N Data Turnaround 45 Days	
Ice Chest No. SM1598		Field Logbook No. EL 1381-3		COA B20CW1671C		Method of Shipment Fed-EX	
Shipped To TMA/RECRA RECRA		Offsite Property No. A0000182		Bill of Lading/Air Bill No. 42357953-5269			
POSSIBLE SAMPLE HAZARDS/REMARKS NONE				Preservation		Cool 4C	
				Type of Container		aG	
				No. of Container(s)		1	
				Volume		120mL	
Special Handling and/or Storage				Hydrazine - D1385			
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time				
B0Y0P2	Soil	4.17.00	0922	X			BOWCR1
B0Y0P3	Soil	4.17.00	0925	X			BOWCR
B0Y0P4	Soil	4.17.00	0900	X			BOWCR0
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By		Date/Time		Received By		Date/Time	
R. Fahlberg		4.17.00		R. Thoren		4.17.00/1247	
Relinquished By		Date/Time		Received By		Date/Time	
R. Thoren		4.18.00/1430		F. E. O. E. N.			
Relinquished By		Date/Time		Received By		Date/Time	
F. E. O. E. N.		4.19.00/0930		D. J. ...		4.19.00/0930	
Relinquished By		Date/Time		Received By		Date/Time	
Relinquished By		Date/Time		Received By		Date/Time	
Relinquished By		Date/Time		Received By		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B99-078-156		Page 1 of 1	
Collector Fahlberg		Company Contact M Todd		Telephone No. 372-9030		Project Coordinator TRENT, SJ		Price Code 8N Data Turnaround 45 Days	
Project Designation 200 Area Source characterization - 200-CW-1 OU		Sampling Location 200 East		SAF No. B99-078		Air Quality <input type="checkbox"/>			
Ice Chest No. SMI-598		Field Logbook No. EL 1381-3		COA B20CW1671C		Method of Shipment Fed-EX			
Shipped To TMA/RECRA RECRA		Offsite Property No. A0000182		Bill of Lading/Air Bill No. 42357953-5269					
POSSIBLE SAMPLE HAZARDS/REMARKS NONE				Preservation		Cool 4C			
				Type of Container		2G			
				No. of Container(s)		1			
				Volume		120mL			
Special Handling and/or Storage				Hydrazine - D1385					
SAMPLE ANALYSIS									
Sample No.	Matrix *	Sample Date	Sample Time						
BOY0N8	Soil	4.17.00	0855	X					BOY0CRO
BOY0N9	Soil	4.17.00	0900	X					
BOY0P0	Soil	4.17.00	0910	X					
BOY0P1	Soil	4.17.00	0918	X					
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS	
Relinquished By R. Fahlberg		Date/Time 4.17.00		Received By R. Thorne		Date/Time 4.17.00/1245			
Relinquished By R. Thorne		Date/Time 4.18.00/1430		Received By F. E. D. E. Y		Date/Time			
Relinquished By New Ex		Date/Time 4.19.00/0930		Received By D. J. M. O. D.		Date/Time 4.19.00/0930			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

SDR # B00-081Revision #: 0Date Initiated: 4/25/00

SAMPLE DISPOSITION RECORD

SAF: B99-078

OU: 200-CW-1

Project ID: 200-CW-1

Task ID: 1

Sampling Event: 200 Area Source Characterization 200-CW-1 Operable Unit

Laboratory: TMA/RECRA

Task Manager: M. E. Todd

Sampling Information:

Number of Samples: 3

ID Numbers: B0Y0P5, B0Y0P6, B0Y0P7

Matrix: Soil

Collection Date: 04/17/00

Issue Background:

Class: ☐ Project Data Use ☒ General Laboratory Direction ☐ Validation Direction ☐ Sample Management Direction

Type: Cancellation of Analyses

Description: Cancellation of PCB and Semi-VOA Analyses

Disposition:

Description: The chain of custody for the listed samples mistakenly requested PCB and semi-VOA analyses. The laboratory was requested to cancel these analyses for the listed samples.

Justification: The PCB and semi-VOA data are not needed by the 200 Area Source Characterization project for the listed samples.

Approval Signatures:

S. J. Trent 
Project Coordinator (Print/Sign Name)

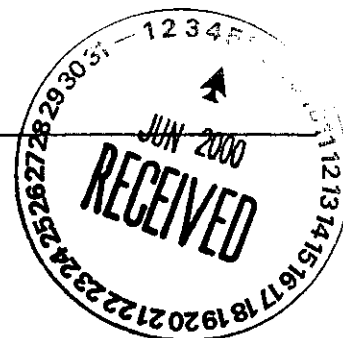
4/25/00

Date

M. E. Todd 
Task Manager (Print/Sign Name)

4/25/00

Date



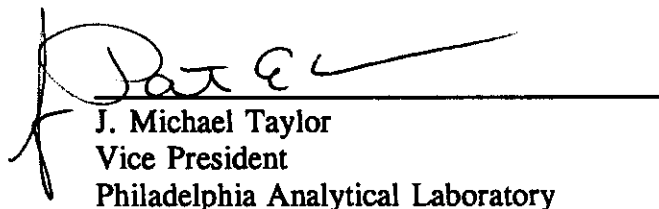
**Recra LabNet Philadelphia
Analytical Report**

Client : TNU-HANFORD B99-078
RFW# : 0004L024
SDG# : H0820
SAF# : B99-078

W.O. # : 10985-001-001-9999-00
Date Received: 04-19-00

INORGANIC CASE NARRATIVE

1. This narrative covers the analyses of 10 soil samples.
2. The samples were prepared and analyzed in accordance with the methods indicated on the attached glossary.
3. Sample holding times as required by the method and/or contract were met.
4. The cooler temperature was recorded on the chain-of-custody.
5. The method blank for Hydrazine was within method criteria.
6. The Laboratory Control Sample (LCS) for Hydrazine was within the laboratory control limits.
7. The matrix spike recovery for Hydrazine was below the 75-125% control limits.
8. The replicate analyses were within the 20% Relative Percent Difference (RPD) control limit.
9. Results for solid samples are reported on a dry weight basis.
10. I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.



J. Michael Taylor
Vice President
Philadelphia Analytical Laboratory

5-25-00
Date

njp\K04-024

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 13 pages.

WET CHEMISTRY
METHODS GLOSSARY FOR SOIL/SOLIDS SAMPLE ANALYSIS

	<u>ASTM</u>	<u>SW846</u>	<u>OTHER</u>
% Ash	___ D2216-80		
% Moisture	___ D2216-80		___ ILMO4.0 (e)
% Solids	✓ ___ D2216-80		___ ILMO4.0 (e)
% Volatile Solids	___ D2216-80		
ASTM Extraction in Water	___ D3987-81/85		
BTU	___ D240-87		
CEC		___ 9081	___ c
Chromium VI		___ 3060A/7196A	
Corrosivity ___ by coupon ___ by pH		___ 1110(mod) ___ 9045C	
Cyanide, Total		___ 9010B	___ ILMO4.0 (e)
Cyanide, Reactive		___ Section 7.3	
Halides, Extractable Organic		___ 9020B	___ EPA 600/4/84-008
Halides, Total		___ 9020B	___ EPA 600/4/84-008
EP Toxicity		___ 1310A	
Flash Point		___ 1010	
Ignitability		___ 1010	
Oil & Grease		___ 9071A	
Carbon, Total Organic		___ 9060	___ Lloyd Kahn (mod)
Oxygen Bomb Prep for Anions	___ D240-87(mod)	___ 5050	
Petroleum Hydrocarbons, Total Recoverable		___ 9071	___ EPA 418.1
pH, Soil		___ 9045C	
Sulfide, Reactive		___ Section 7.3	
Sulfide		___ 9030B(mod)	
Specific Gravity	___ D1429-76C/	___ D5057-90	
Sulfur, Total		___ 9056	
Synthetic Preparation Leach		___ 1312	
Paint Filter		___ 9095A	
Other: <i>Hydrazine</i>	Method: <i>Air Force (colorimetric)</i>		
Other:	Method	<i>(F33615-84-D-4400/2016)</i>	

Recra LabNet Philadelphia
METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.

MS = Matrix Spike.

MSD = Matrix Spike Duplicate.

REP = Sample Replicate

LC = Laboratory Control Sample.

NC = Not calculated.

A suffix of -R, -S, or -T following these codes indicate a replicate, spike or sample duplicate analysis respectively.

ANALYTICAL WET CHEMISTRY METHODS

1. ASTM Standard Methods.
2. USEPA Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020).
3. Test Methods for Evaluating Solid Waste (USEPA SW-846).
 - a. Standard Methods for the Examination of Water and Waste, 16 ed, (1983).
 - b. Standard Methods for the Examination of Water and Waste, 17 ed, (1989)/18ed (1992).
 - c. Method of Soil Analysis, Part 1, Physical and Mineralogical Methods, 2nd ed, (1986).
 - d. Method of Soil Analysis, Part 2, Chemical and Microbiological Properties, Am. Soc. Agron., Madison, WI (1965).
 - e. USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis.
 - f. Code of Federal Regulations.

Recra LabNet - Lionville

INORGANICS DATA SUMMARY REPORT 05/24/00

CLIENT: TNU-HANFORD B99-078
WORK ORDER: 10985-001-001-9999-00

RECRA LOT #: 0004L024

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-----	-----	-----	-----	-----	-----	-----
-001	BOY0P5	% Solids	96.9	%	0.01	1.0
-002	BOY0P6	% Solids	96.4	%	0.01	1.0
-003	BOY0P7	% Solids	95.2	%	0.01	1.0
-004	BOY0P2	% Solids	94.4	%	0.01	1.0
		Hydrazine	0.79 u	MG/KG	0.79	1.0
-005	BOY0P3	% Solids	93.2	%	0.01	1.0
		Hydrazine	1.1 u	MG/KG	1.1	1.0
-006	BOY0P4	% Solids	92.8	%	0.01	1.0
		Hydrazine	1.1 u	MG/KG	1.1	1.0
-007	BOY0N8	% Solids	93.2	%	0.01	1.0
		Hydrazine	1.0 u	MG/KG	1.0	1.0
-008	BOY0N9	% Solids	93.2	%	0.01	1.0
		Hydrazine	0.90 u	MG/KG	0.90	1.0
-009	BOY0P0	% Solids	96.2	%	0.01	1.0
		Hydrazine	0.87 u	MG/KG	0.87	1.0
-010	BOY0P1	% Solids	96.6	%	0.01	1.0
		Hydrazine	0.72 u	MG/KG	0.72	1.0

Recra LabNet - Lionville

INORGANICS METHOD BLANK DATA SUMMARY PAGE 05/24/00

CLIENT: TNU-HANFORD 899-078

RECRA LOT #: 0004L024

WORK ORDER: 10985-001-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	00LHZA01-MB1	Hydrazine	1.0	u MG/KG	1.0	1.0

Recra LabNet - Lionville

INORGANICS ACCURACY REPORT 05/24/00

CLIENT: TNU-HANFORD 899-078
WORK ORDER: 10985-001-001-9999-00

RECRA LOT #: 0004L024

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-004	BOYDP2	Hydrazine	29.4	0.79u	53.5	55.0	5.0
BLANK10	00LHZA01-MB1	Hydrazine	5.0	1.0 u	5.0	99.9	1.0

Recra LabNet - Lionville

INORGANICS PRECISION REPORT 05/24/00

CLIENT: TNU-HANFORD B99-078

RECRA LOT #: 0004L024

WORK ORDER: 10985-001-001-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR (REP)
-001REP	BOY0P5	% Solids	96.9	97.0	0.12	1.0
-004REP	BOY0P2	Hydrazine	0.79u	0.97u	NC	1.0

Recra LabNet - Lionville Laboratory
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD B99-078

DATE RECEIVED: 04/19/00

RFW LOT # :0004L024

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BOY0P5						
% SOLIDS	001	S	00L*S061	04/17/00	04/25/00	04/26/00
% SOLIDS	001 REP	S	00L*S061	04/17/00	04/25/00	04/26/00
BOY0P6						
% SOLIDS	002	S	00L*S061	04/17/00	04/25/00	04/26/00
BOY0P7						
% SOLIDS	003	S	00L*S061	04/17/00	04/25/00	04/26/00
BOY0P2						
% SOLIDS	004	S	00L*S061	04/17/00	04/25/00	04/26/00
HYDRAZINE	004	S	00LHZA01	04/17/00	04/20/00	04/20/00
HYDRAZINE	004 REP	S	00LHZA01	04/17/00	04/20/00	04/20/00
HYDRAZINE	004 MS	S	00LHZA01	04/17/00	04/20/00	04/20/00
BOY0P3						
% SOLIDS	005	S	00L*S061	04/17/00	04/25/00	04/26/00
HYDRAZINE	005	S	00LHZA01	04/17/00	04/20/00	04/20/00
BOY0P4						
% SOLIDS	006	S	00L*S061	04/17/00	04/25/00	04/26/00
HYDRAZINE	006	S	00LHZA01	04/17/00	04/20/00	04/20/00
BOY0N8						
% SOLIDS	007	S	00L*S061	04/17/00	04/25/00	04/26/00
HYDRAZINE	007	S	00LHZA01	04/17/00	04/20/00	04/20/00
BOY0N9						
% SOLIDS	008	S	00L*S061	04/17/00	04/25/00	04/26/00

Recra LabNet - Lionville Laboratory
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD B99-078

DATE RECEIVED: 04/19/00

RFW LOT # :0004L024

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
HYDRAZINE	008	S	00LHZA01	04/17/00	04/20/00	04/20/00
BOY0P0						
% SOLIDS	009	S	00L*S061	04/17/00	04/25/00	04/26/00
HYDRAZINE	009	S	00LHZA01	04/17/00	04/20/00	04/20/00
BOY0P1						
% SOLIDS	010	S	00L*S061	04/17/00	04/25/00	04/26/00
HYDRAZINE	010	S	00LHZA01	04/17/00	04/20/00	04/20/00

LAB QC:

HYDRAZINE	MB1	S	00LHZA01	N/A	04/20/00	04/20/00
HYDRAZINE	MB1 BS	S	00LHZA01	N/A	04/20/00	04/20/00

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Discrepancies Between
Samples Labels and
COC Record? Y or (11)
NOTES
4235 3953 521-9

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B99-078-158		Page <u>1</u> of <u>1</u>	
Collector Fahlberg		Company Contact M Todd		Telephone No. 372-9033		Project Coordinator TRENT, SJ		Price Code 8N	
Project Designation 200 Area Source characterization - 200-CW-1 OU		Sampling Location 200 East		SAF No. B99-078		Air Quality <u>11</u>		45 Days	
Ice Chest No. <u>SM1-598</u>		Field Logbook No. EL 1381-3		COA B20CW1671C		Method of Shipment Fed-EX *			
Shipped To TMA/RECRA <u>Recra</u>		Offsite Property No. <u>A0000182</u>		Bill of Lading/Air Bill No. <u>42357953-5269</u>					
POSSIBLE SAMPLE HAZARDS/REMARKS <u>NONE</u>		Preservation		Cool 4C					
		Type of Container		aG					
		No. of Container(s)		1					
		Volume		120mL					
Special Handling and/or Storage									
SAMPLE ANALYSIS				Semi-VOA - 8270A (TCL), TPH-Diesel Range - WTPH-D, PCBs - 8082					
Sample No.	Matrix *	Sample Date	Sample Time						
BOY0P5	Soil	<u>4.17.00</u>	<u>1020</u>	<u>X</u>					
BOY0P6	Soil	<u>4.17.00</u>	<u>1020</u>	<u>X</u>					
BOY0P7	Soil	<u>4.17.00</u>	<u>1030</u>	<u>X</u>					
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS					
Relinquished By		Date/Time		Received By		Date/Time		Originated from a non-Red location. No activity report provided. <u>22000 pcu/g</u>	
<u>R. Fahlberg</u>		<u>4.17.00</u>		<u>R. Thorne</u>		<u>4.17.00/1205</u>			
<u>R. Thorne</u>		<u>4.18.00/1450</u>		<u>FED EX</u>					
<u>FED EX</u>		<u>4.19.00/1030</u>		<u>D. [Signature]</u>		<u>4.19.00/1030</u>			
Relinquished By		Date/Time		Received By		Date/Time		<div style="font-size: small;"> Matrix * S Soil SE Sediment SO Solid S Sludge W Water O Oil A Air DS Drum Solids DL Drum Liquids T Tissue W Wipe L Liquid V Vegetation X Other </div>	
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B99-078-157		Page 1 of 12	
Collector Fahberg		Company Contact M Todd		Telephone No. 372-9030		Project Coordinator TRENT, SJ		Price Code 8N Data Turnaround 45 Days	
Project Designation 200 Area Source characterization - 200-CW-1 OU		Sampling Location 200 East		SAF No. B99-078		Air Quality			
Ice Chest No. Sm1598		Field Logbook No. EL 1381-3		COA B20CW1671C		Method of Shipment Fed-EX			
Shipped To TMA/RECRA RECRA		Offsite Property No. A000182		Bill of Lading/Air Bill No. 42357953-5269					
POSSIBLE SAMPLE HAZARDS/REMARKS NONE		Preservation		Cool 4C					
		Type of Container		aG					
		No. of Container(s)		1					
		Volume		120ml.					
Special Handling and/or Storage				Hydrazine - D1385					
SAMPLE ANALYSIS									
Sample No.	Matrix *	Sample Date	Sample Time						
B0Y0P2	Soil	4.17.00	0922	X				BOWCR1	
B0Y0P3	Soil	4.17.00	0925	X				BOWCR2	
B0Y0P4	Soil	4.17.00	0900	X				BOWCR3	
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix * S - Soil SF - Sediment SO - Solid S - Sludge W - Water O - Oil A - Air DS - Drum Solids DH - Drum Liquids T - Tissue WL - Waste L - Liquid V - Vegetation Y - Other	
Relinquished By R. Fahberg		Date/Time 4.17.00		Received By R. Thoren		Date/Time 4.17.00/1245			
Relinquished By R. Thoren		Date/Time 4.18.00/1430		Received By FED-EX		Date/Time			
Relinquished By RECRA		Date/Time 4.19.00/1030		Received By D. Smith		Date/Time 4.19.00/1030			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
LABORATORY SECTION		Received By		Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time	

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B99-078-156		Page 1 of 1	
Collector Fahlberg		Company Contact M Todd		Telephone No. 372-9030		Project Coordinator TRENT, SJ		Price Code 8N Data Turnaround 45 Days	
Project Designation 200 Area Source characterization - 200-CW-1 OU		Sampling Location 200 East		SAF No. B99-078		Air Quality			
Ice Chest No. SM1-578		Field Logbook No. EL 1381-3		COA B20CW1671C		Method of Shipment Fed-EX			
Shipped To TMA/RECRA RECRA		Offsite Property No. A0000182		Bill of Lading/Air Bill No. 42357953-5269					
POSSIBLE SAMPLE HAZARDS/REMARKS NONE		Preservation		Cool 4C					
		Type of Container		aG					
		No. of Container(s)		1					
		Volume		120mL					
Special Handling and/or Storage				Hydrazine - D1385					
SAMPLE ANALYSIS									
Sample No.	Matrix *	Sample Date	Sample Time						
BOY0N8	Soil	4.17.00	0855	X					
BOY0N9	Soil	4.17.00	0900	X					
BOY0P0	Soil	4.17.00	0910	X					
BOY0P1	Soil	4.17.00	0918	X					
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By		Date/Time		Received By		Date/Time			
R. Fahlberg		4.17.00		R. Thunen		4.17.00/1245			
Relinquished By		Date/Time		Received By		Date/Time			
R. Thunen		4.17.00/1245		T. E. D. E. N.					
Relinquished By		Date/Time		Received By		Date/Time			
T. E. D. E. N.		4.19.00/0930		D. J. M. A. C.		4.19.00/0930			
Relinquished By		Date/Time		Received By		Date/Time		Matrix * S - Soil SE - Sediment SD - Solid SL - Sludge W - Water O - Oil A - Air DS - Drums Solids DL - Drums Liquids T - Tissue WL - Waste L - Liquid V - Vegetation X - Other	
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			